DEMIANCOK, Jozef

Decomposition of KCl by sulphuric acid in a medium of 3-butanol. Chem prum 15 no.4:236-237 Ap '65.

1. Chemicke zavody J.Dimitrova, Bratislava. Submitted July 9, 1964.

DEMIANCZUK, P. P.

DEMIANCZUK, P. P. Note on the Total Radiation of the Sun. Gazeta obserwatora PIHM, 1951, no. 1, p. 9-10.

DEMIANCZUK, P.P.

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(4) Geo

Meteorological Abst
Vol. 4 No. 3
Mar. 1954
Mechanics and
Thermodynamics
of the Atmosphere

4.3-108 551.511:551.524.1

Demiańczuk, Piotr Paweł, O zależności między temperaturą potencjalno-ekwiwalentną a temperaturą pseudopotencjalną w rożnych masach powietrznych. [On the relation between equivalent potential temperature and pseudo potential temperature in different air masses.] *Przegląd Meteorologiczny i Hydrologiczny*, 1950/1951:62–83, 1951. 3 tables, numerous eqs. French summary p. 83. **DWB**—A discussion about the most accurate computation of the above mentioned temperatures based on various equations and formulas, compared with theories of ROSSBY and KOPCZEWICZ. Articles from BERRY, BOLLAY, and BEERS "Handbook of meteorology" are also considered. *Subject Headings:* 1. Equivalent potential temperature 2. Pseudo potential temperature 3. Thermodynamics of the atmosphere 4. Temperature calculations.—*Wanda Tomczykowski.*

DEMIANCZUK, P. P.

POL.

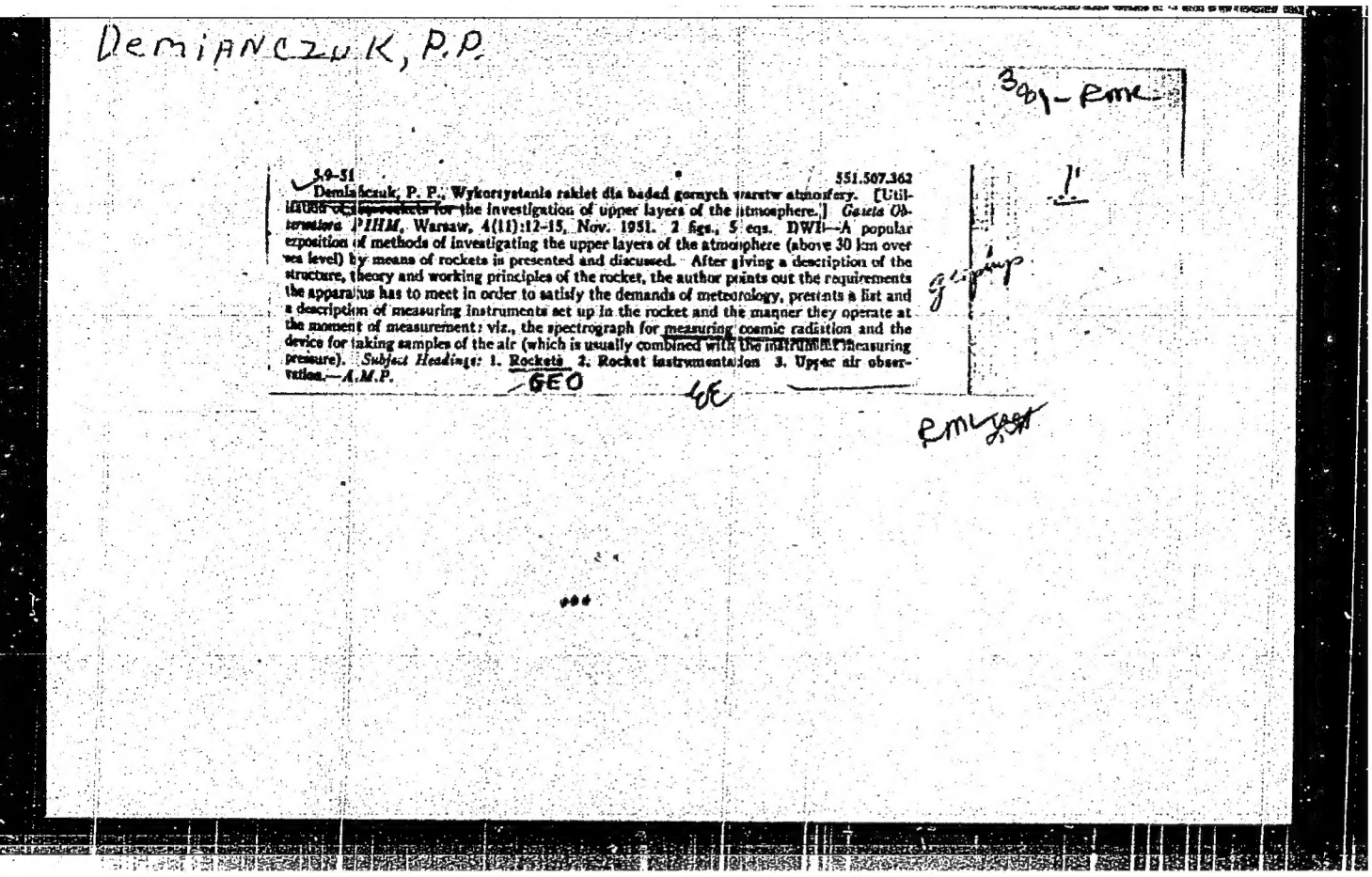
6.3-225

Domiańczuk, P. P., Termodynamiczne uzasadnienie wzoru empirycznego na wyznaczanie wysokości punktu kondensacji ponad poziom wyjścia. [The thermodynamic basis of the empirical formula for determining the height of condensation point above the exit level.] *Poland. Państwowy Instytut Hydrologiczno-Meteorologiczny. Wiadomości Służby Hydrologicznej i Meteorologicznej.* 3(2):148–150, 1951. table. 18 eqs. DWB—Author shows how to derive the empirical equation $z - z_0 = A(T_0 - \tau_0)$ for the condensation height from the laws of thermodynamics, utilizing the Clausius-Clapeyron equation for the saturated pressure of water vapor. z—height; z_0—height of exit level; T_0 and τ_0 temperature and dew point at z_0. Values for A versus τ_0 given for the cases of condensation and sublimation. *Subject Heading:* 1. Condensation level.—*A. A.*

551.574

DEMIANCZUK P. P.

Demianczuk, P. P., Nota odnośnie współczynnika dyfuzji pary wodnej w powietrzu i współczynnika lepkości dynamicznej powietrza. [A note concerning the diffusivity of water vapor in the air and the dynamic viscosity of the air.] *Poland. Państwowy Instytut Hydrologiczno-Meteorologiczny. Wiadomości Służby Hydrologicznej i Meteorologicznej*, 3(2):152–155, 1951. 7 tables, 21 eqs. DWB—A review on the determination of the coefficient n in the relationship $\frac{D}{D_0} = \left(\frac{T}{T_0}\right)^n \frac{p}{P}$; D—diffusivity of water vapor in the air; T—absolute temperature, p—air pressure. Measured n varies between 1.7 and 2.0. Only BRUNT gives 2.2 to 2.6. Relationship between diffusivity and dynamic viscosity and their temperature dependence discussed on the basis of the kinetic theory of gases. *Subject Headings:* 1. Water vapor diffusion 2. Viscosity of air.—*A.A.*



Demianczuk, P.P.

3.9-51 551.507.362

Demiańczuk, P. P., Wykorzystanie rakiet dla badań górnych warstw atmosfery. [Utilization of rockets for the investigation of upper layers of the atmosphere.] *Gazeta Obserwatora PIHM*, Warsaw, 4(11):12-15, Nov. 1951. 2 figs., 5 eqs. DWIi—A popular exposition of methods of investigating the upper layers of the atmosphere (above 30 km over sea level) by means of rockets is presented and discussed. After giving a description of the structure, theory and working principles of the rocket, the author points out the requirements the apparatus has to meet in order to satisfy the demands of meteorology, presents a list and a description of measuring instruments set up in the rocket and the manner they operate at the moment of measurement: viz., the spectrograph for measuring cosmic radiation and the device for taking samples of the air (which is usually combined with the instrument measuring pressure). *Subject Headings:* 1. Rockets 2. Rocket instrumentation 3. Upper air observation.—*A.M.P.*

GEO

Demianczuk, Piotr Pawel

5.2-29 551.501.4:551.511:551.524

Demiańczuk, Piotr Pawel, O współzależności miedzy temperatura potencjalna i ekstremalna wartościa funkcji prawdopodovieństwa. [On the relation between the potential temperature and the extreme value of probability function.] Przeglad Meteorologiczny i Hydrologiczny, No. 1/2:116-121, 1952. 14 eqs. French summary p. 121. MH-BH--This sketch of extensive work published in Wiadomosci Sluzby Hydrologicznej i Meteorologicznej in 1952 discusses relations obtained by use of the well known formula. Subject Headings: 1. Potential temperature computation 2. Probability theory.--N.T.Z.

DEMIANCZUK, P.

"Horizontal visibility." (To be contd.) p. 5. (Gazeta Obserwatora, Vol. 6, no. 1, January 1953. Warszawa.)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, February 1954, Uncl.

DEMIANCZUK, P.

"Evaporation Formula for Lakes in a Zone Parallel to the Polish Lowland." p. 454, (GOSPODARKA WODNA, Vol. 13, No. 12, Dec. 1953. Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

DEMIANCZUK, P.P.

7.5-110 551.511:517.3

Demiańczuk, P. P. **Nota odnośnie rozwiązania całki określającej pionową energię chwiejności powietrza.** [A note concerning the solution of the integral determining the vertical energy of air instability.] *Poland. Państwowy Instytut Hydrologiczno-Meteorologiczny. Wiadomości Służby Hydrologicznej i Meteorologicznej*, 3(4):297–302, 1954. Eng., 3 tables, 14 eqs. Russian and French summaries p. 301–302. DLC—A highly theoretical paper in which, after having questioned the correctness of the solution of the integral determining the vertical energy of air instability introduced by T. Korcewicz in his book Physics of the Atmosphere, the author presents a general solution of the integral as well as two special solutions resulting from the general solution. The first of them pertains to the case of division of the air (surface) comprised between the actual curve and the curve of the temperatures for moist air in layers of 100 mb thickness, by intervals increasing the pressure 1000 mb, 900 mb, 800 mb, etc. The second solution has a very simple mathematical form and can be easily solved on a thermodynamic diagram. *Subject headings:* 1. Instability criteria 2. Integral equations.—*A.M.P.*

Demiańczuk, Piotr Paweł

7.3-222 551.573

Demiańczuk, Piotr Paweł, Zależność potencjalna parowania w przedziale wpływu słońca. [The potential capacity of evaporation under the influence of the sun.] *Poland. Państwowy Instytut Hydrologiczno-Meteorologiczny. Wiadomości, Służby Hydrologicznej i Meteorologicznej*, 3(4):303–315, 1954. 2 figs., 9 tables, 10+ eqs. Russian and French summaries p. 314–315. DLC—A highly theoretical paper in which the questions of evaporation from the ground and from open water surfaces are treated and solved on a physical basis, many different from the methods used before. The physical principles of the formulas for the determination of potential capacities of evaporation (in the different months of the year) under influence of the sun rays, without consideration of the transpiration of plants, are based on premises introduced in an earlier report of the author (1952) at a scientific conference in Warsaw called by the Meteorological and Hydrological Society. It is pointed out that an accurate numerical presentation of the problem could be made only from observational data of the German network, because the Polish meteorological network does not have the required data. *Subject Headings:* 1. Potential evaporation 2. Solar influences.—*A.M.P.*

DEMIANCZUK, Piotr 355

An article entitled "Contemporary View of the Structure of the earth's Atmosphere" by Magister Piotr DEMIANCZUK appeared in the Journal of the Observatory of the Polish Institute of Hydrometeorology, Vol. VII, No. 9, Sept 1954, [redacted]

DEMIANCZUK, P.

DEMIANCZUK, P.

Contemporary view on the structure of the earth's atmosphere. (Conclusion) p.2.
GAZETA OBSERWATORA, P.I.H.M., Warszawa, Vol. 7, no. 10, Oct. 1954.)

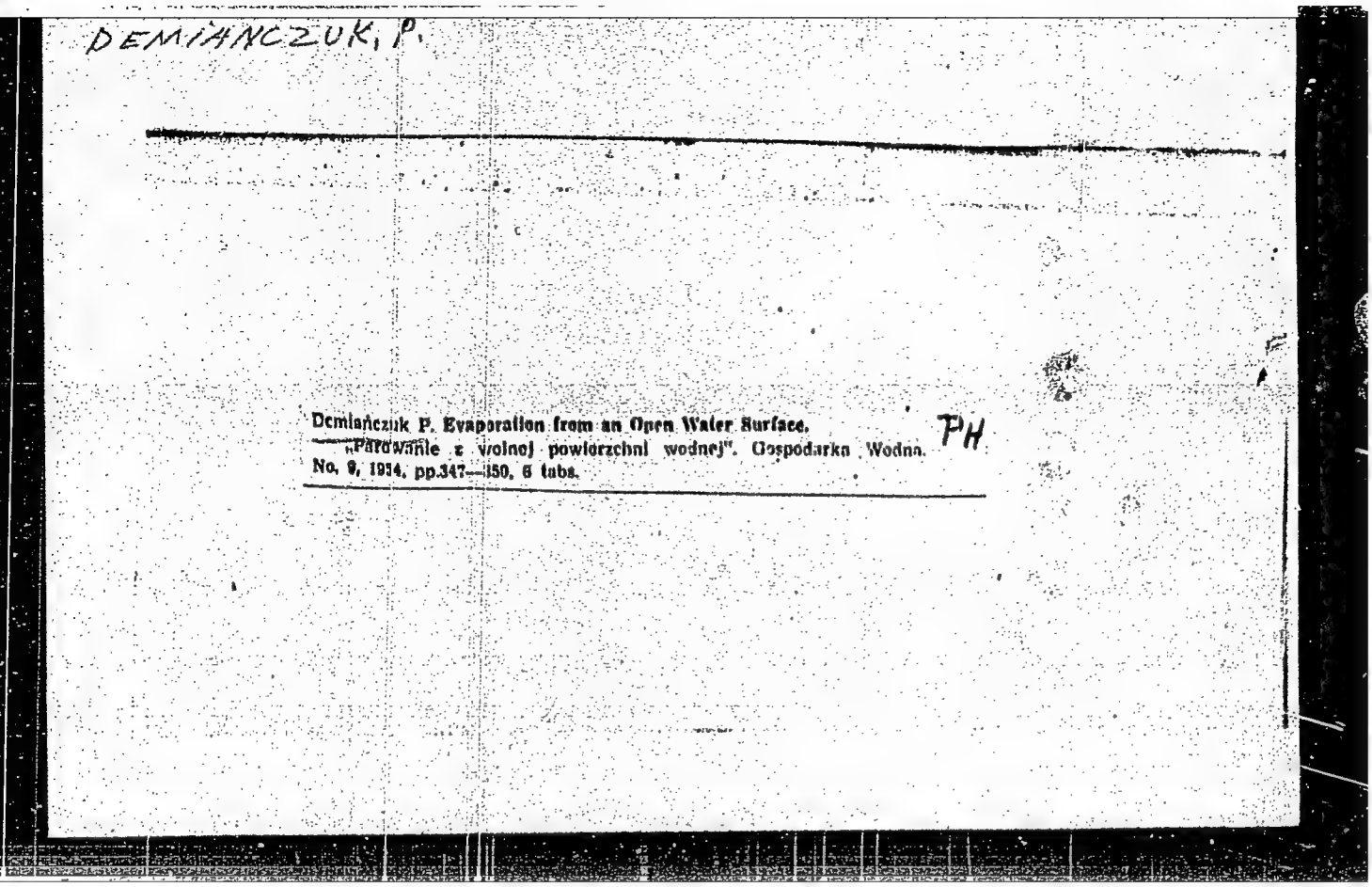
SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jan. 1955, Uncl.

DEMIANCZUK, P.

DEMIANCZUK, P.

Mist, p. 2. (GAZETA OBSERWATORA, P.I.H.M., Warszawa, Vol. 7, no. 11, Nov. 1954.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.



DEMIANCZUK, P.

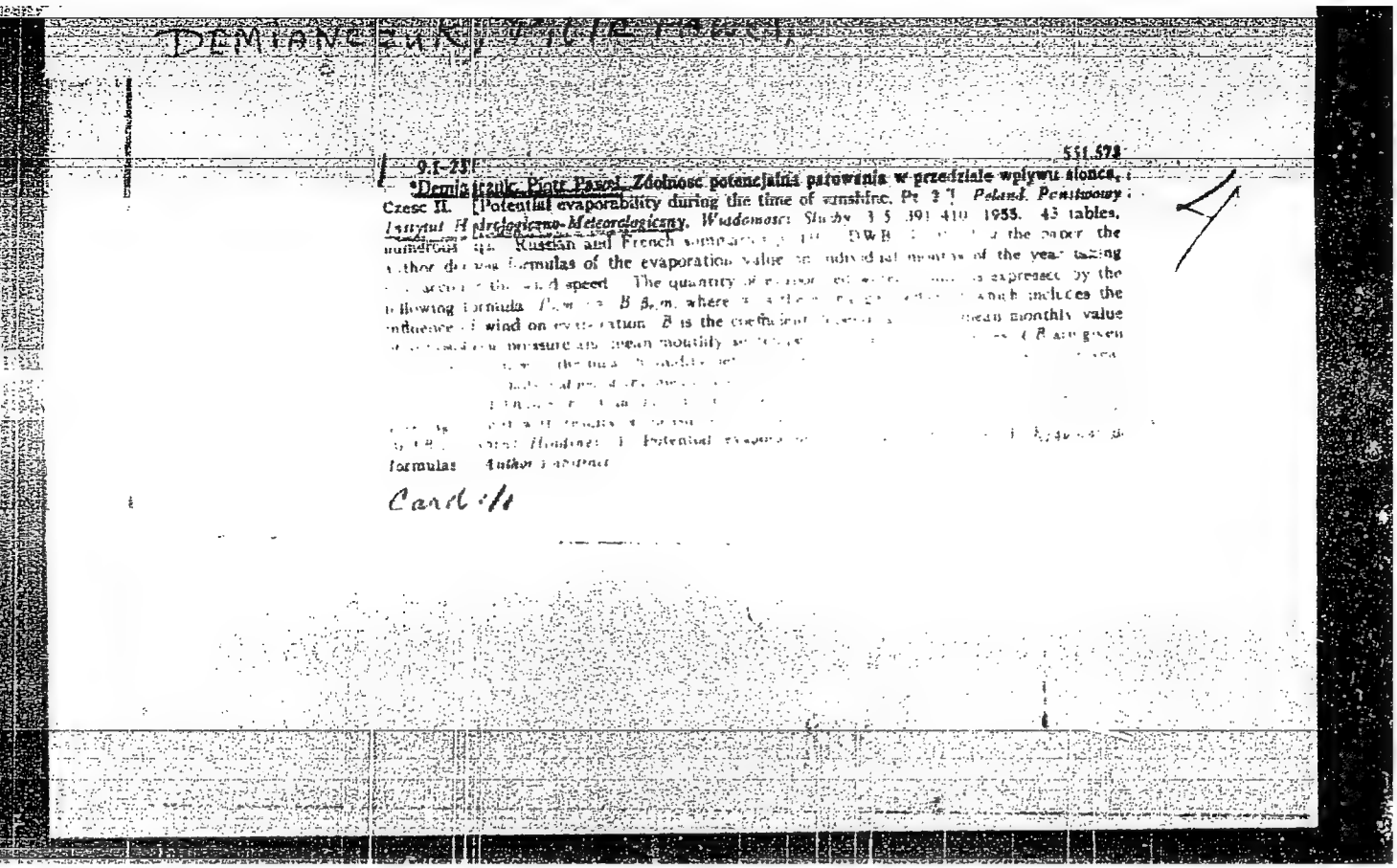
Demiańczuk P. Evaporation from an Open Water Surface.
„Parowanie z wolnej powierzchni wodnej". Gospodarka Wodna.
No. 9, 1954, pp.347—350, 6 tabs.

PH

DEMIANCZUK, P.P.

Modyfikacja diagramu Stuvego. Warszawa, Wydawn. Komunikacyjne, 1955. 32 p. (Warsaw. Panswowy Instytut Hydrologiczno-Meteorologiczny. Seria A. Instrukcje i podreczniki, nr. 32) (A modification of the Stuve diagram. tables, diagrs)

So. East European Accessions List. Vol. 5, no. 1, 1956 January



DEMIANCZUK, P.

551.578

9.1.23

*Demiańczuk, Piotr Paweł. Zdolność potencjalna parowania w przedziale wpływu słońca, i Część II. [Potential evaporability during the time of sunshine. Pt 2.] *Poland. Państwowy Instytut Hydrologiczno-Meteorologiczny. Wiadomości Służby* 3 5 391 410 1955. 43 tables, numerical [illegible] Russian and French summaries [illegible] the paper the author discusses formulas of the evaporation value for individual months of the year using [illegible] speed. The quantity of evaporation is expressed by the following formula [illegible] where [illegible] takes into account the influence of wind on evaporation. B is the coefficient [illegible] mean monthly value [illegible] measure and mean monthly [illegible] are given [illegible] formulas. Author's abstract

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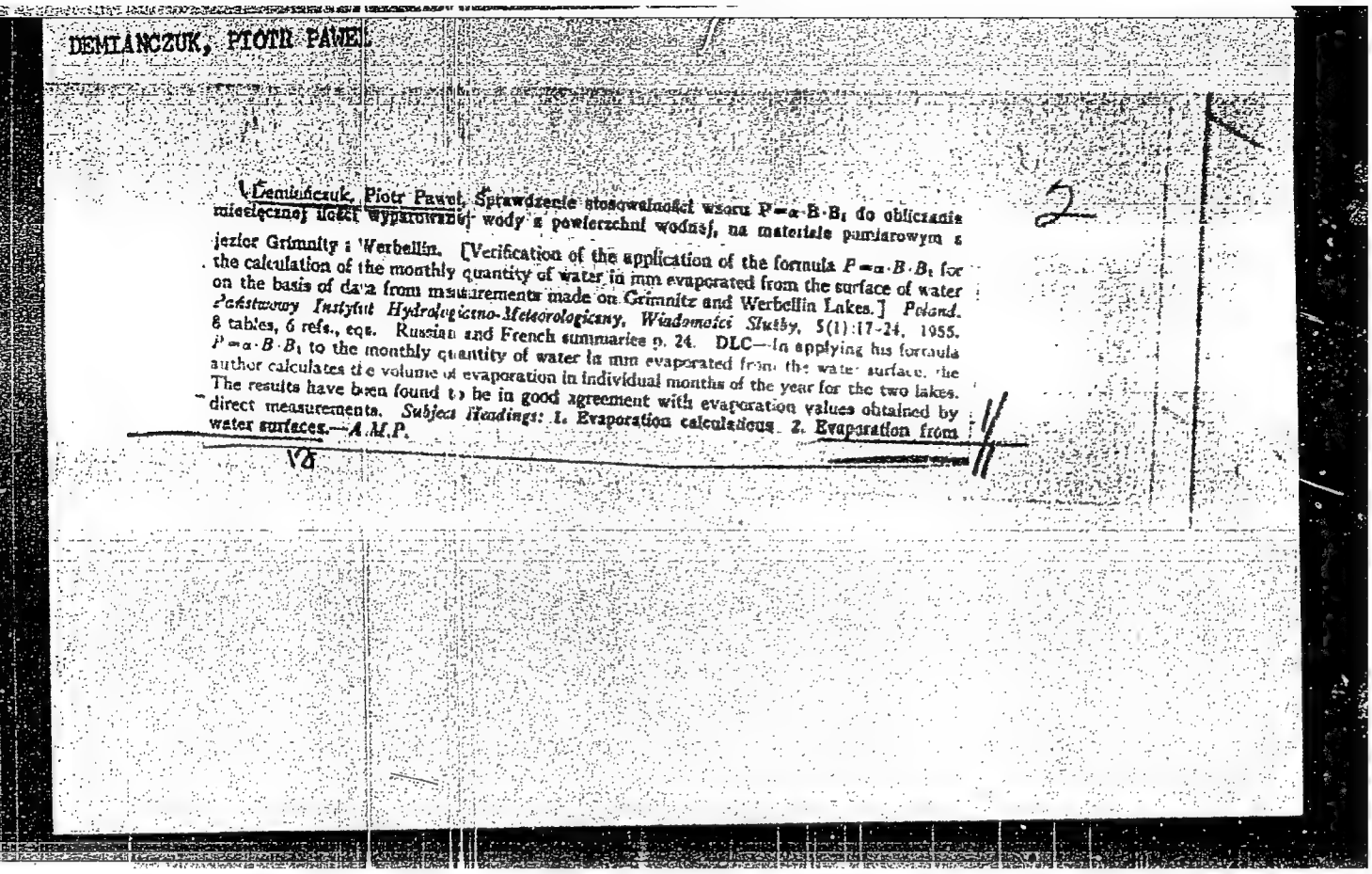
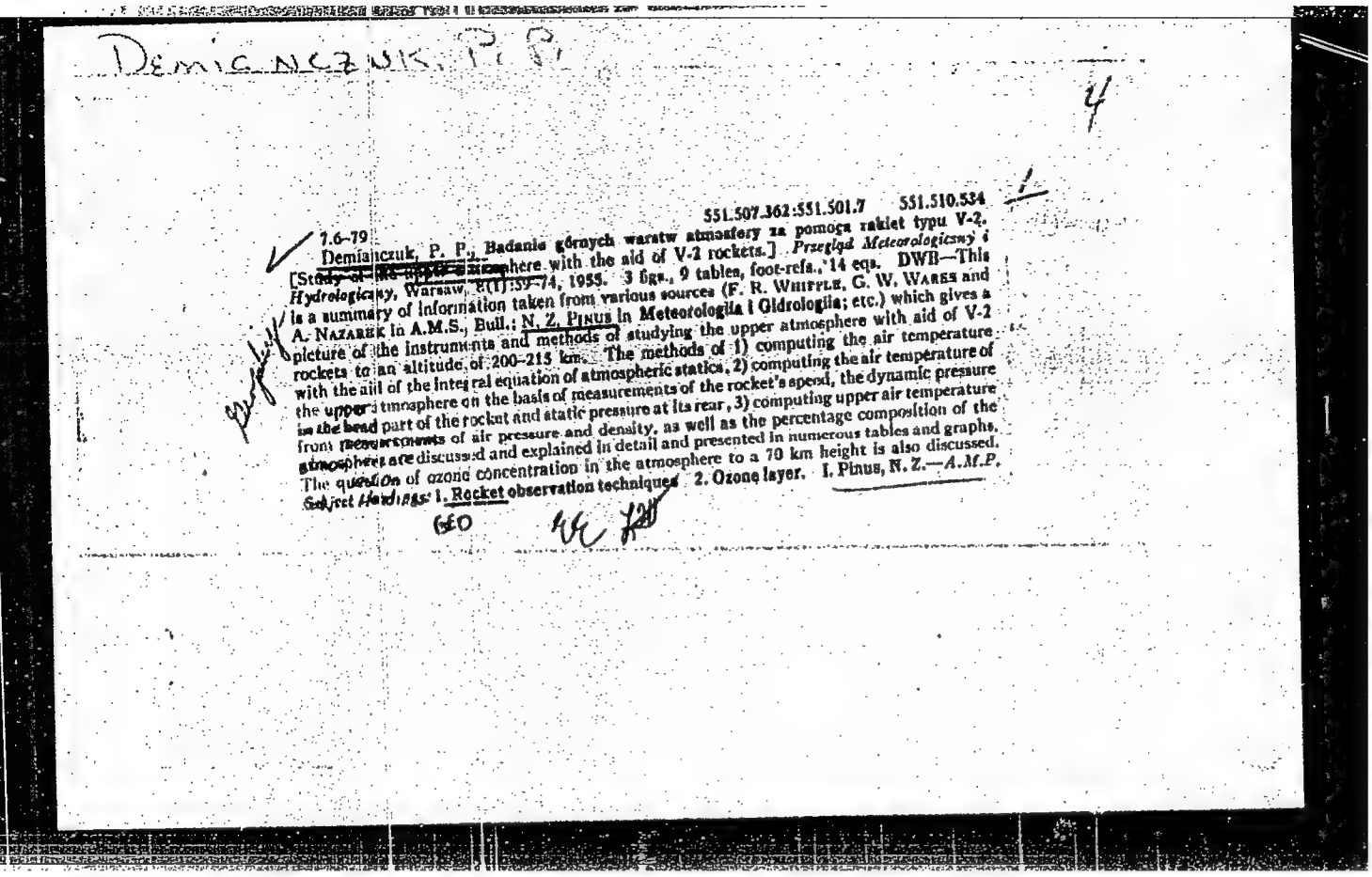


DEMIANCZUK, PIOTR PAWEŁ

Demianczuk, Piotr Pawel. Sprawdzenie stosowalności wzoru $P=\alpha \cdot B \cdot B_t$ do obliczania miesięcznej ilości wyparowanej wody z powierzchni wodnej, na materiale pomiarowym z jezior Grimnitz i Werbellin. [Verification of the application of the formula $P=\alpha \cdot B \cdot B_t$ for the calculation of the monthly quantity of water in mm evaporated from the surface of water on the basis of data from measurements made on Grimnitz and Werbellin Lakes.] *Poland. Państwowy Instytut Hydrologiczno-Meteorologiczny, Wiadomości Służby*, 5(1):17-24, 1955. 8 tables, 6 refs., eqs. Russian and French summaries p. 24. DLC—In applying his formula $P=\alpha \cdot B \cdot B_t$ to the monthly quantity of water in mm evaporated from the water surface, the author calculates the volume of evaporation in individual months of the year for the two lakes. The results have been found to be in good agreement with evaporation values obtained by direct measurements. *Subject Headings:* 1. Evaporation calculations. 2. Evaporation from water surfaces.—*A.M.P.*



Demianczuk, P. P.

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551.507.362:551.501.7 551.510.534

7.6-79

Demianczuk, P. P., Badanie górnych warstw atmosfery za pomocą rakiet typu V-2. [Study of the upper atmosphere with the aid of V-2 rockets.] *Przegląd Meteorologiczny i Hydrologiczny*, Warsaw, 8(1):59-74, 1955. 3 figs., 9 tables, foot-refs., 14 eqs. DWB—This is a summary of information taken from various sources (F. R. Whipple, G. W. Wares and A. Nazarek in A.M.S., Bull.; N. Z. Pinus in **Meteorologia i Gidrologia**; etc.) which gives a picture of the instruments and methods of studying the upper atmosphere with aid of V-2 rockets to an altitude of 200-215 km. The methods of 1) computing the air temperature with the aid of the integral equation of atmospheric statics, 2) computing the air temperature of the upper atmosphere on the basis of measurements of the rocket's speed, the dynamic pressure in the head part of the rocket and static pressure at its rear, 3) computing upper air temperature from measurements of air pressure and density, as well as the percentage composition of the atmosphere are discussed and explained in detail and presented in numerous tables and graphs. The question of ozone concentration in the atmosphere to a 70 km height is also discussed. Subject Headings: 1. Rocket observation techniques 2. Ozone layer. I. Pinus, N. Z.—*A.M.P.*

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DEMIANCZUK, P

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Absolute humidity of air and the pressure of steam, p. 8. (GAZETA OBSERWATORA, P.I.H.M., Warszawa, Vol. 8, no. 2, Feb. 1955.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

DEMIANCZUK, F.

Oldekop method of calculating the average monthly value of the humidity of air. p. 10.

GAZETA OBSERWATORA, Warszawa, Vol. 8, no. 3, Mar. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

DEMIANCZUK, P.

New formulas for the calculation of the yearly value of evaporation from a water basin. p. 191. (Przeglad Geofizyczny, Vol. 1, No. 3/4, 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

DEMIANCZUK, P. P.

DEMIANCZUK, P. Evaporation from an open surface of water. p. 145

Vol. 4, no. 3, 1956
ACTA GEOPHYSICA POLONICA
GEOGRAPHY & GEOLOGY
Warszawa, Poland

So: East European Accession, vol. 6, no. 3, March 1957

DEMIANSZUK, Piotr Pawel

The highth of the base of CU and CB clouds in Poland. Przegl geofiz 6 no.1/2:9-14 '61.

1. Panstwowy Instytut Hydrologiczno-Meteorologiczny, Warszawa.

DEMIANCZUK, Piotr Pawel

Diurnal evaporation course from a water surface. Przegl. geofiz. 8 no.1/2:89-92 '63.

1. Polski Instytut Hydrologiczno-Meteorologiczny, Warszawa.

POLAND / General Division, Scientific Establishments A-3

Abs Jour: Ref Zhur-Biologiia, No 5, 1958, 18865

Author : Demianowiczowa Zofia

Inst : -

Title : The Division of Botany of the Agriculture Faculty of UMCS at Lublin

Orig Pub: Kosmos (Warszawa), 1955, A4, No 4, 625-626

Abstract: The division is working out the questions of botany in its application to agriculture, in particular to the questions of the feeding basis of bees. Since May 1954, a comparative study has been going on and three species of linden in relation to the nectar productivity of these species. In the study of nectaries on fruit trees, a dependence was established between the productivity of nectar and the germ of the fruit. Studied also was the qualitative composition of the

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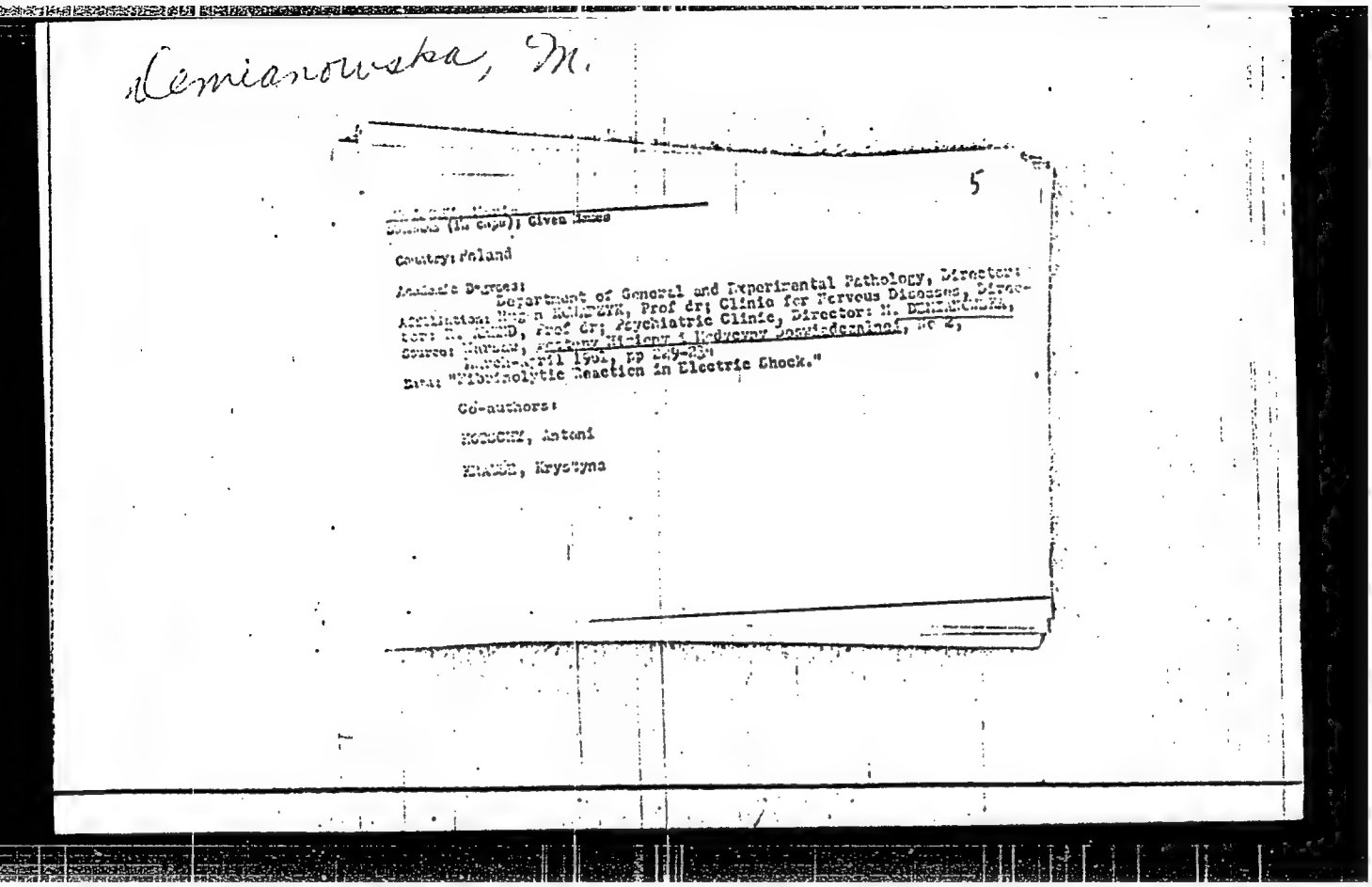
MIERZECKI, Henryk; DEMIANOWSKA, Maria; WASIK, August; WOYTON, Aleksandra

Effect of the central nervous system on the course of cutaneous sensitization reactions and bacterial infections in experimental animals. Polski tygod. lek. 14 no.32:1479-1482 10 Aug 59.

1. (Z Kliniki Dermatologicznej A. M. we Wroclawiu: dyrektor - prof. dr J. Mierzecki i z Kliniki Psychiatrycznej A. M. we Wroclawiu, dyrektor - prof. dr Demianowski)
(ALLERGY, exper.) (CENTRAL NERVOUS SYSTEM, physiol.)
(INFECTION, exper.)



Lemianowska, M.

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Author (in Engl): Given Name

Country: Poland

Author's Degrees:

Affiliation: Department of General and Experimental Pathology, Director: [illegible]; Clinic for Nervous Diseases, Director: [illegible], Prof dr; Psychiatric Clinic, Director: M. [illegible], [illegible], Prof dr; Psychiatry Clinic i Medyczny Uniwersytet, No 2,

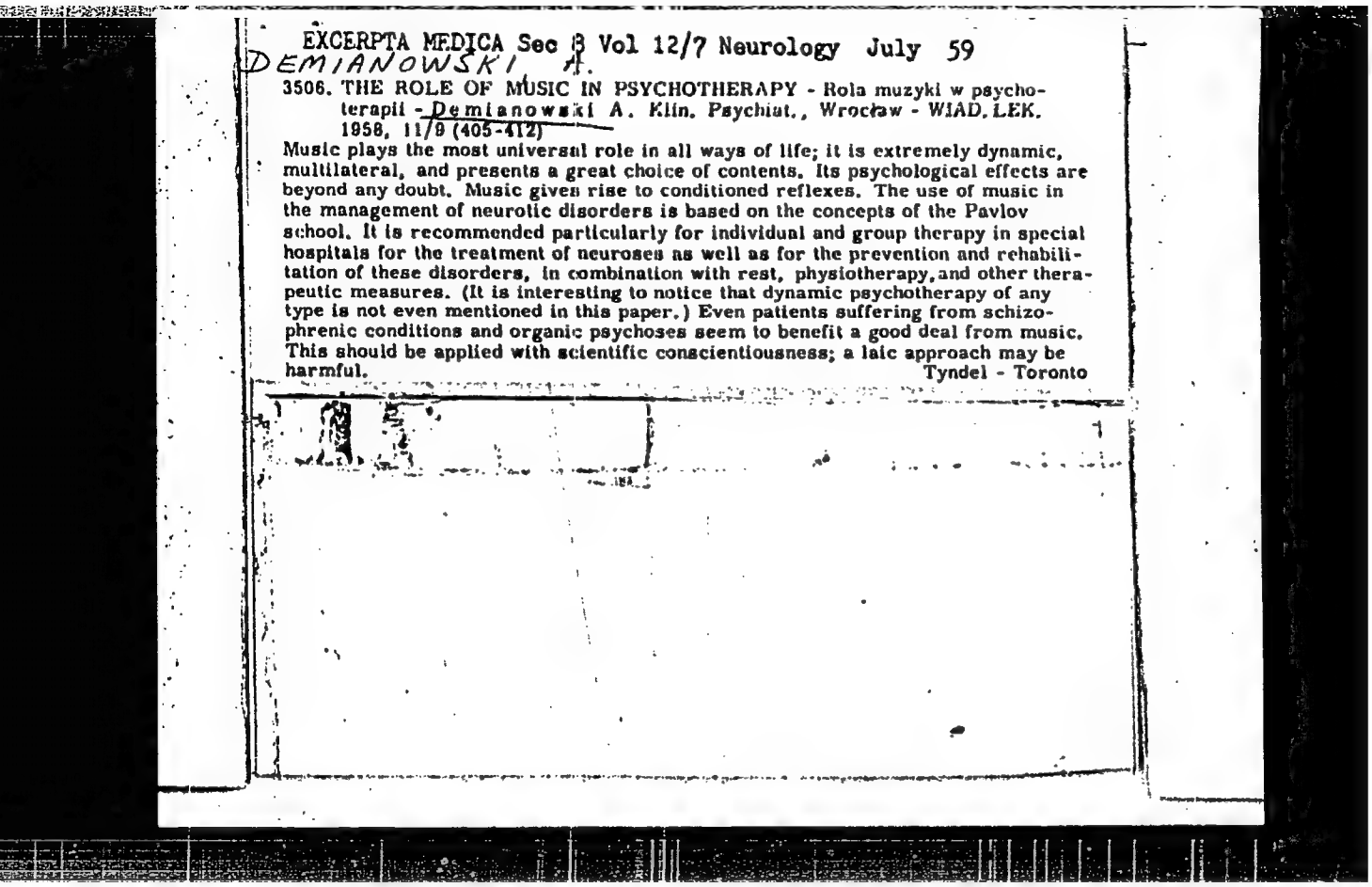
Source: [illegible], Academy Medicine i Medyczny Uniwersytet, No 2, [illegible] 1962, pp 249-251

Title: "Fibrinolytic Reaction in Electric Shock."

Co-authors:

[illegible], Antoni

[illegible], Krystyna



EXCERPTA MEDICA Sec 3 Vol 12/7 Neurology July 59

DEMIANOWSKI, A.

3506. THE ROLE OF MUSIC IN PSYCHOTHERAPY - Rola muzyki w psychoterapii - Demianowski A. Klin. Psychiat., Wrocław - WIAD. LEK. 1958, 11/9 (405-412)

Music plays the most universal role in all ways of life; it is extremely dynamic, multilateral, and presents a great choice of contents. Its psychological effects are beyond any doubt. Music gives rise to conditioned reflexes. The use of music in the management of neurotic disorders is based on the concepts of the Pavlov school. It is recommended particularly for individual and group therapy in special hospitals for the treatment of neuroses as well as for the prevention and rehabilitation of these disorders, in combination with rest, physiotherapy, and other therapeutic measures. (It is interesting to notice that dynamic psychotherapy of any type is not even mentioned in this paper.) Even patients suffering from schizophrenic conditions and organic psychoses seem to benefit a good deal from music. This should be applied with scientific conscientiousness; a laic approach may be harmful.

Tyndel - Toronto

DEMIANSKI, M.; INFELD, E.

Note on the field method of obtaining the conservation laws and solving the two body problem in general relativity. Bul Ac Pol Mat 9 no.9:693-696 '61.

1. Institute of Theoretical Physics, University, Warsaw and Trinity College, Cambridge. Presented by L.Infeld.

DEMIANSKI, Marek; INFELD, Eryk

The field method of obtaining the conservat on laws and the Lagrangian. Acta physica Pol 21 no.5:469-479 My '62.

1. University of Warsaw and Trinity College.

DEMIANSKI, M.; INFELD, E.

The radiative energy and the motion of particles. Bul Ac Pol mat 11 no.4:223-226 '63.

1. Institute of Physics, University, Warsaw, and Institute for Nuclear Research, Warsaw. Presented by L. Infeld.

DEMIASZKIEWICZ, W.

Spring-summer tick encephalitis in the Bialowieza Forest. Polska tygod lek. 7 no. 24:799-801 16 June 1952. (CLML 23:3)

1. Bialowieza Station for Diagnosis of Diseases of Forest Animals.

DEMICH, G.

"Fuel and oil during the winter season." p. 332. (MOTORYZACJA. Vol. 9, No. 11, Nov. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4. April 1955. Uncl.

BOBRENEV, A.; DEMICHEV, A.; STUKALOV, V.

Light and shadows. Mast.ugl. 8 no.12:9 D '59.
(MIRA 13:4)

1. Chleny TSentral'nogo komiteta profsoyuza rabochikh ugol'noy promyshlennosti.
(Karaganda Basin--Coal mines and mining)

/

DEMICHEV, A.D., inzh.

Improved technology. Put' i put. khoz. 7 no.10:9 '63.
(MIRA 16:12)

DEMICHEV, A.D.

Problem of determining the amount of induction heating. [Izdaniia] LONITOMASH no.30:213-220 '52. (MLRA 8:1)
(Induction heating)

VOLOGDIN, V.P.; DEMICHEV, A.D.

Strengthening thick-walled steel tubes by induction heating.
[Izdaniia] LONITOMASH no.30:386-396 '52. (MLRA 8:1)
(Tubes)

DEMICHEV, A.D.

Vysokochastotnaia zakalka (High-frequency surface hardening). Pod red. A.A. Fogelia. Moskva, Mashgiz, 1954. 64 p. (B-ka vysokochastotnika-termista, no.3)

SO: Monthly List of Russian Accessions, Vol 7, No9, Dec 1954

DEMICHEV, A.D.

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Demichev, Aleksey Dmitriyevich and Shashkin, Semen Vasil'yevich

Vysokochastotnaya zakalka (High-frequency Case Hardening) 2nd ed., rev. and enl. Moscow, Mashgiz, 1957. 52 p. (Bibliotechka vysokochastotnika-termista. Vyp. 3) 10,000 copies printed.

Ed.: (Title page): Fogel', A.A., Candidate of Tech. Sciences; Reviewer: Donskoy, A.V., Dr. of Tech. Sciences, Prof.; Ed. of Publishing House: Gofman, Ye. K.; Tech. Ed.: Speranskaya, O.V.; Editorial board of series: Fogel', A.A., Candidate of Tech. Sciences (Chairman); Spitsyn, M.A., Candidate of Tech. Sciences, Slukhotskiy, A.Ye., Candidate of Tech. Sciences, Glukhanov, N.P., Candidate of Tech. Sciences (Ed. of this issue); and Baumner, A.V., Engineer. Chief Ed. of the Leningrad Division of Mashgiz: Bol'shakov, S.A., Engineer.

PURPOSE: This booklet is one of a series published for the purpose of promoting high-frequency case hardening, pooling advanced production "know-how". It is intended for a large circle of industrial workers interested in the techniques of high-frequency case hardening.

COVERAGE: The authors give general descriptions of high-frequency devices for induction case hardening of steel and cast-iron products. They discuss the problem of selecting proper frequencies to be used in case hardening of

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various surfaces of various shapes. There are 11 references, all USSR.

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DEMICHEV, A.D.; YENGOVATOV, A.A.; KUZNETSOV, N.N.; KOSTYUKOVICH, N.I.; ULYUYEV, D.I.; USHAKOV, S.M.; LIDERS, G.V., kandidat tekhnicheskikh nauk, redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor

[Mechanizing work in major repairing of railroad tracks; experience of track machinery stations] Mekhanizatsiia rabot po kapital'nomu remontu puti; opyt putevykh mashinnykh stantsii. Moskva, Gos. transp.zhel-dor.izd-vo, 1957. 107 p. (MLRA 10:9)
(Railroads--Track)

DEMICHEV A.D.

CHIRKOV, N.S.; DEMICHEV, A.D.

Laying track with separate fastenings. Put' i put.khoz. no.6:17-18 Je '57. (MIRA 10:7)

1. Glavnyy inzhener Putevoy mashinnoy stantsii-5 (for Chirkov).
2. Nachal'nik normativnoy stantsii (for Demichev).
(Railroad--Track)

DEMICHEV, A.D.; KISELEV, V.F., starshiy dorozhnyy master (stantsiya Ira-Iol' Pechorskoy dorogi); KOZLOVSKIY, A.D.; KOMAIDIN, A.A., starshiy dorozhnyy master (Stantsiya Polotsk Belorusskoy dorogi); KURS, V.G., brigadir puti (stantsiya Cheremkhovo Vostochno-Sibirskoy dorogi); PAVLOV, V.N., brigadir puti (stantsiya Cheremkhovo Vostochno-Sibirskoy dorogi); SHAKHBALAYEV, A.M., dorozhnyy master (stantsiya Zenzeli Ordzhonikidzevskoy dorogi); TARASENKO, V.Ye., dorozhnyy master (stantsiya Irkutsk II)

Letters to the editor. Put' i put.khoz. no.11:43-45 N '58.
(MIRA 11:12)

1. Nachal'nik normativnoy stantsii tresta "Rekput'." (for Demichev).
2. Zamestitel' nachal'nika distantsii, stantsiya Kizel Sverdlovskoy dorogi (for Kozlovskiy).

(Railroad engineering)

DOLMATOV, S.N.; DEMICHEV, A.D. (g.Kuybyshev)

Applying the new technology. Put' i put.khoz. no.12:21 D '59.
(MIRA 13:4)

(Railroads--Maintenance and repair)

ULANTSEV, I.D., inzh.; DEMENTIY, A.D., tekh.

Laying tracks on reinforced concrete ties. Transp. stroi. 11 no.2: 16-18 F '61. (MIRA 14:2)
(Railroads--Ties, Concrete)

DEMICHEV, A.D.

Use of cranes for the laying of switch assemblies on reinforced concrete blocks. Put' put.khoz. 8 no.2:8-9 '64. (MIRA 17:3)

1. Nachal'nik normativno-instruktorskoy stantsii No.3, st.Butovo, Moskovskoy dorogi.

ZANNES, A.N., inzh.; RUDOL'SKIY, N.L., inzh.; FRADIN, M.D., inzh.; SAPELKINA, O.R., inzh.; BIKHUNOV, L.Ya., inzh.; GLOZMAN, M.I., inzh.; Prinimali uchastiye: DEMICHEV, A.D.; SUCHKOUSOV, V.P.; BLAGOVESHCHENSKIY, G.V.; GOLOVIN, G.F.; KAZARNOVSKIY, D.S.; RAVITSKAYA, T.M.

Surface induction hardening of rails along their whole length at the Azovstal' Plant. Stal' 24 no.8:731-734 Ag '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut tokov vysokoy chastoty (for Demichev, Suchkousov, Blagoveshchenskiy, Golovin).
2. Ukrainskiy nauchno-issledovatel'skiy institut metallov (for Kazarnovskiy, Ravitskaya).

DEMICHEV, A.I.; NIKONOV, D.A.

Competition between two collectives. Put' i put.khoz. 9 no.8:5-6 '65.
(MIRA 18:8)

1. Nachal'nik Normativno-instruktorskoy stantsii No.3 (for Demichev).
2. Starshiy inzh. Normativno-instruktorskoy stantsii No.3 (for Nikonov).

DEMICHEV, A.D.; GOLOVIN, G.F.; SHASHKIN, S.V.; DONSKOY, A.V., doktor tekhn. nauk prof., retsenzent; FOGEL', A.A., kand. tekhn. nauk, red.

[High-frequency hardening] Vysokochastotnaia zakalka. Izd.3., ispr. i dop. Pod red. A.A.Fogelia. Moskva, Mashinostroenie, 1965. 83 p. (MIRA 18:12)

SINITSKIY, Kh.; DEMICHEV, A.I., redaktor; ALEKSANDROVICH, Kh., tekhnicheskiy redaktor

[Increasing labor productivity in the industries of White Russia] Povyshenie proizvoditel'nosti truda v promyshlennosti Belorusskoi SSR. Minsk, Izd-vo Akademii nauk BSSR, 1956. 62 p. (MIRA 10:1)
(White Russia--Labor productivity)

DEMICHEV, A. I.

An area of communist labor. Mashinostroitel' no.10:4-5 O '62.
(MIRA 15:10)

(Sterlitamak--Machine-tool industry)

DEMICHEV, A.I.; GILYAZITDINOV, K.M.; ALEKSEYEV, V.A.; ROMANCHUK, V.A.

New special-purpose machine tools manufactured at the Sterlitamak Machine-Tool Plant. Mashinostroitel' no.4:16-17 Ap '63. (MIRA 16:5)

(Sterlitamak--Machine-tool industry)

Æ 'METOV, E.Z.; DEMICHEV, A.I.

New 3S-180 machine tool. Mashinostroitel' no.3:14 Mr '64.
(MIRA 17:4)

DEMICHEV, A.I.

Special-purpose semiautomatic honing machine. Biul.tekh.-ekon. inform.Gos.nauch.-issl.inst.nauch.i tekh.inform 17 no.11:47-48 N '64. (MIRA 18:3)

BORODIN, Stepan Vasil'yevich; DEMICHEV, Aleksandr Nikolayevich; ROZIN, Pavel Iosifovich. Prinimali uchastiye: TOCHIL'NIKOVA, G.M.; KARCHEVSKIY, V.N.; FILIPPOVA, E., red.izd-va; LEBEDEV, A., tekhn. red.

[Finance and credit] Finansy i kredit. Moskva, Gosfinizdat, 1963. 222 p. (MIRA 17:2)

DEMICHEV, A.P.

Influence of nicotinic acid on the unconditioned reflex function of the salivary gland. Fiziol. zhur. 46 no. 5:561-564 My '60. (MIRA 13:12)

1. From the Institute of Psychiatry, U.S.S.R. Academy of Medical Sciences, Moscow.
(SALIVARY GLANDS) (NICOTINIC ACID)

DEMICHEV, A.P.

Neurological complications in treatment with antabuse. Vop. psikh. no.4:266-269 '60. (MIRA 15:2)
(DISULFIDE--THERAPEUTIC USE)

DEMICHEV, A.P. (Moskva)

Clinical aspects of the syndrome of acute cervical radiculitis in alcoholism. Trudy Gos. nauch.-issl. inst. psikh. 38:24-37 '63. (MIRA 16:11)

DEMICHEV, A.P.; GRIGOROVICH, N.N. (Moskva)

Data on pneumoencephalographic examination of chronic alcoholics. Trudy Gos. nauch.-issl. inst. psikh. 38:211-229 '63. (MIRA 16:11)

SOV/137-59-2-4380

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 293 (USSR)

AUTHOR: Demichev, A. Ya.

TITLE: Application of High-frequency Currents in the Bearing Industry (Primeneniye tokov vysokoy chastoty v podshipnikovoy promyshlennosti)

PERIODICAL: V sb.: Materialy Soveshchaniya glavn. metallurgov z-dov i in-tov avtomob. prom-sti. Nr 3. Moscow, 1958, pp 85-86

ABSTRACT: In order to eliminate the difficulties arising in the high-frequency hardening of bearing parts it is recommended to construct a loading device for the feeding and automatic setting of bearing parts for heating and hardening in the inductor and to design equipment for treating bearing parts with two frequencies: A lower frequency for the working surface and a higher frequency for the fitting surface.

A. B.

Card 1/1

DEMICHEV, G. M.

Organizatsiia skladskogo khoziaistva na zheleznо-dorozhnom transporte. [Organization of storage facilities in railroad transportation]. Pod red. A.V. Naumova. Utverzhdeno v kachestve uchebnika dlia tekhnikumov po spetsial'nosti "Material'no-tekhn. snabzhenie." Moskva, Gos. Transp. zhel-dor. izd-vo, 1941. 447 p. illus.
Bibliography: p.[448]. DLC: TF345.D4

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

DEMICHEV, G.M., kandidat tekhnicheskikh nauk; LAPUSHKIN, A.D., redaktor.

[Warehousing] Skladskoe khoziaistvo. [Redaktor A.D.Lapushkin] Moskva, Gos. transp. zhel-dor. izd-vo, 1953. 395 p. (MLRA 6:10)
(Warehouses)

DEMICHEV, Georgiy Maksimovich; PESKOVA, L.N., redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor

[Supplying railroads with materials and equipment] Material'no-tekhnicheskoe snabzhenie na zheleznodorozhnom transporte. Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 49 p. (MLRA 10:9)
(Railroads--Equipment and supplies)

DEMICHEV, Georgiy Maksimovich, kand.tekhn.nauk; KOKTUNOVA, M.P., red.; KHITROV, P.A., tekhn.red.

[Warehouses and the mechanization of warehouse work] Material'nye sklady i mekhanizatsiia skladskikh rabot. Izd.2., dop. i perer. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 303 p. (MIRA 13:11)
(Railroads--Freight) (Warehouses)

DEMICHEV, Georgiy Maksimovich; KORYTOV, Aleksey Nikolayevich; LYASHENKO, Andrey Petrovich; KRISHTAL', L.I., red.; BOBROVA, Ye.N., tekhn.red.

[Economics and organization of supplying material and equipment for railroads] Ekonomika i organizatsiia material'no-tekhnicheskogo snabzheniia zheleznodorozhnogo transporta. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 325 p. (MIRA 13:11)
(Railroads--Equipment and supplies)

BURMISTROV, P.I.; SAMOYLOVICH, S.D.; DEMICHEV, G.M.; KONONOV, V.A.; EVENCHIK, S.D.; BRODOVSKIY, N.R.; PAVLOV, S.M.; BOBROV, A.A.; BASKIN, A.I.; SHKOL'NIKOV, S.A.; VASIL'YEV, B.K.; DRANNIKOV, A.B.; RIKMAN, M.A.; BURAKOV, V.A.; VLADIMIROV, A.P.; NIKOLAYEVSKIY, G.M.; PETRUSHEV, I.M., red.; GERASIMOVA, Ye.S., tekhn. red.

[Mechanization of loading, unloading and storing operations in industrial enterprises] Mekhanizatsiia pogruzochno-razgruzochnykh i skladskikh rabot na promyshlennykh predpriiatiiakh. Moskva, Ekonomizdat, 1963. 276 p.
(MIRA 17:2)

DEMICHEV, A.I.

The SS179 special-purpose automatic 40-spindle machine. Biul.tekh. ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 17 no.10: 50-51 O '64. (MIRA 18:4)

DEMICHEV I.P.

ANDRIYASHEVA, N.M.; BAKKAL, T.P.; BEKKER, S.M.; BOGDANOV-BEREZOVSKIY, V.V.; BRAUN, A.D.; VASILEVSKAYA, N.L.; GANUSENKO, M.N.; GARMASHEVA, N.L.; DEMICHEV, I.P.; DRIZGALOVICH, S.Ye.; KALININA, N.A.; KORSAKOVA, G.F.; KRYZHANOVSKAYA, Ye.F.; MIROVICH, N.I.; PROROKOVA, V.K.; PUGOVISHNIKOVA, M.A.; RESHETOVA, L.A.; SVETLOV, P.G.; UTEGENOVA, K.D.; KHECHINASHVILI, G.G.; SHVANG, L.I.; GARMASHEVA, N.L., professor, redaktor; RUDAKOV, A.V., redaktor; RULEVA, M.S., tekhnicheskiy redaktor.

[Reflex actions in mother-fetus interrelations] Reflektornye reaktsii vo vzaimootnosheniiakh materinskogo organizma i ploda. [Leningrad] Gos. izd-vo med. lit-ry, Leningradskoe otd-nie, 1954. 266 p.(MLRA 7:10)
(Pregnancy) (Embryology)

DEMICHEV I.P.

PETCHENKO, A.I., prof.; DEMICHEV, I.P., kand.med.nauk

New method for accelerating and completing labor [with summary in English]. Akush. i gin. 33 no.6:15-21 N-D '57. (MIRA 11:3)

1. Iz kafedry akusherstva i ginekologii (zav.-prof. A.I.Petchenko) Leningradskogo pediatricheskogo meditsinskogo instituta.

(LABOR
acceleration with vacuum extractor)
(OBSTETRICS, appar. & instruments,
vacuum extractor (Rus)

DEMICHEV, I.P., kand. med. nauk.

Treatment of cracked nipples by doses of congestive hyperemia and synthomycin ointment. Vop. okh. mat. i det. 3 no.1:87-89 Ja-F '59. (MIRA 12:2)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A. I. Petchenko) Leningradskogo pediatricheskogo meditsinskogo instituta (dir. - prof. N. T. Shutova).

(BREAST--DISEASES) (CHLOROMYCETIN)

DEMICHEV, I.P., kand.meditsinskikh nauk; L'VOVA, Ye.I. studentka (Leningrad)

Treatment of cracked nipples by dosages of congestive hyperemia a and synthomycin ointment. Fel'd. i akush. 25 no. 7:22-26 Je '60. (MIRA 13:8)

(HYPEREMIA, ARTIFICIAL) (CHLOROMYCETIN) (BREASTS—DISEASES)

DMITRIEV, N.I.

Measuring, checking, and counting instruments for dredge pumps. Biul.tekh.-ekon.inform. no.4:37-38 '59. (MIRA 12:7)
(Dredging machinery)

KOVALENKO, P.P., prof.; DEMICHEV, N.P.

Homotransplantation of freeze-dried bone in the treatment of closed fractures; clinical observation. Ortop., travm.i protez. no.12:40-45 '60. (MIRA 14:2)

1. Iz kafedry obshchey khirurgii (zav. - prof. P.P. Kovalenko) Rostovskogo na Donu meditsinskogo instituta.
(FRACTURES) (BONE GRAFTING)

DEMICHEV, N.P. (Rostov n/D, ul. Engel'ska, d.156, kv.15)

Use of frozen bone homografts in closed fractures in an experiment. Ortop., travm.i protez. no.2:19-24 '62. (MIRA 15:3)

1. Iz kafedry obshchey khirurgii (zav. - prof. P.P. Kovalenko) Rostovskogo-na Donu meditsinskogo instituta.
(FRACTURES) (BONES—TRANSPLANTATION)

KOVALENKO, P.P.; SKVORTSOV, F.F.; DEMICHEV, N.P.

Preparation of cadaver tissues in a medicolegae morgue.
Sud.-med. ekspert. 6 no.4:48-51 O-D'63 (MIRA 16:12)

1. Kafedra gospital'noy khirurgii (zav. - prof. P.P.Kovalenko) i kafedra sudebnoy meditsiny (zav. - dotsent F.F. Skvortsov) Rostovskogo meditsinskogo instituta.

KOVALENKO, P.P., prof.; DEMICHEV, N.P., dotsent (Rostov-na-Donu)

"Preparation and preservation of tissues" by Rudolf Klen. Reviewed by P.P. Kovalenko, N.P. Demichev. Ortop., travm. i protez. 24 no.8:79-80 Ag '63. (MIRA 17:1)

L 13066-65 AMD

ACCESSION NR: AR4045862 S/0299/64/000/014/M023/M023

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 14M149

AUTHOR: Kolosova, A. A.; Demichev, N. P.; Yemel'yanov, V. A.; Sklyarov, P. M.; Goryun, G. G.; Gorikov, N. G.; Bayshtruk, O. N.

TITLE: Certain morphological regularities of changes in homotransplant tissues with a support-mechanical function

CITED SOURCE: Sb. 3 Vses. konferentsiya po peresadke tkaney i organov, 1963. Yerevan, 1963, 347-348

TOPIC TAGS: transplantation, homotransplant tissues, support-mechanical function tissues, tissues

TRANSLATION: Tissues with support-mechanical functions (bones, cartilages, fascias, tendons, and pericardium) have high density, durability, and few vessels; and, under transplantation conditions they preserve their structure for a long time and perform a support function. Transplanted fresh or preserved tissues under conditions of +4°, -25°, -189°, and lyophylization are gradually resorbed and

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L 13066-65
ACCESSION NR: AR4045862

are replaced by the recipient's own tissues. The nature and time of this process depend on several factors, primarily on density of tissues, time of their vacuolization, and inflamation reaction intensity in the transplant matrix. A brief analysis of factors which determine the nature of changes in homotransplant tissues with a support-mechanical function is given.

SUB CODE: LS ENCL: 00

Card 2/2

KOVALENKO, P.P., prof.; DEMICHEV, N.P. (Rostov-na-Donu)

Review of A.A.Korzh's book "Heterotopic traumatic ossifications."
Ortop., travm. i protez. 25 no.5:66-69 My '64.
(MIRA 18:4)

KOVALENKO, P.P., prof. (Rostov-na-Donu, ul. Engel'sa, d.56, kv.60);
DEMICHEV, N.P., dotsent

Homotransplantation of lyophilized tendons in deep flexor injury of the finger at the level of the radiocarpal joint. Ortop., travm. i protez. 25 no.8:53-55 Ag '64. (MIRA 18:4)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. P.P.Kovalenko) Rostovskogo-na-Donu meditsinskogo instituta.

EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JG
AR6031736 (A) SOURCE CODE: UR/0299/66/000/009/M029/M029

AUTHOR: Kovalenko, P. P.; Demichev, N. P.; Perepechay, L. B.

15
B

TITLE: Homotransplantation of frozen and lyophilized bones in orthopedics and traumatology

SOURCE: Ref. zh. Biologiya, Part II, Abs. 9M166

REF SOURCE: Tr. I Vses. s"yezda travmatologo-ortopedov, 1963. M., Meditsina, 1965, 420-422

TOPIC TAGS: homotransplantation, autotransplantation, bone plastic operation, bone transplant, lyophilization

ABSTRACT: A study was made on the homotransplantation of bones, preserved at +4°, -8°, -25°, -183° and by lyophilization, on the basis of experiments carried out 3—6 months earlier on rabbits and dogs (391) and of boneplastic operations in 79 patients. Homotransplants of preserved bones had good osteogenic properties when the bone socket was carefully prepared, when a close contact was made with the socket, and when the extremity operated on was given a long rest. Unfavorable results (18, 9%) were observed in patients on whom

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UDC: 577. 99+611. 018-089. 843

KOVALENKO, P.P., prof.; DEMICHEV, N.P. (Rostov-na-Donu); KORZH, A.A., prof. (Khar'kov).

Reviews. Ortop., travm. i protez. 26 no.8:86-91 Ag '65. (MIRA 18:9)

DEMICHEV, N.P., dotsent (Rostov-na-Donu, ul Engel'sa, d. 156, kv.15)

Fascial homoplasty in traumatic dislocation of the tendons of the fibular muscles. Ortop., travm. i protez. 26 no.11:87-90 N '65. (MIRA 18:12)

1. Iz kafedry gospital'noy khirurgii (zav.- prof. P.P. Kovalenko) Rostovskogo meditsinskogo instituta (rektor - dotsent Yu.B. Ryzhkov).

DEMICHEV, P.

The strength of Soviet trade unions is in the party leadership. Sov. profsoiuzy 17 no.18:5-8 S '61. (MIRA 14:8)

1. Sekretar' Moskovskogo gorodskogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza.
(Communist Party--Party work)
(Moscow--Trade unions)
(Moscow--Socialist competition)

DEMICHEV, Petr Nilovich

[Speech at the 22d Congress of the CPSU, October 19, 1961] Rech' na XXII s"ezde KPSS 19 oktiabria 1961 goda. Moskva, Gos. izd-vo polit. lit-ry, 1961. 15 p. (MIRA 14:11)
(Communist Party of the Soviet Union)
(Moscow—Industries)

KACHALOV, N.N.; BOKIN, P.Ya.; DEMICHEV, S.A.; ROMANOV, B.Ye.

Grinding glass with garnet powder. Trudy LTI no.49:25-29 '58. (MIRA 15:5)

(Glass) (Grinding and polishing) (Garnet)

ACCESSION NR: AR4015686 S/0081/63/000/023/0151/0151

SOURCE: RZh. Khimiya, Abs. 23D68

AUTHOR: Demichev, S. A.; Romanov, B. Ye.

TITLE: Temperature measurements in microfurnaces

CITED SOURCE: Steklo. Byul. Gos. n.-i. in-ta stekla, no. 3(116), 1962, 42-46

TOPIC TAGS: microfurnace, furnace temperature, temperature measurement, vacuum microfurnace, thermocouple

TRANSLATION: A new modification of a vacuum microfurnace (Galakhov F. Ya. "Zavodsk. labor.", 1951, 17, No. 2, 254) is proposed with spiral heaters made of tungsten wire having a thickness of 1.5 mm (inside of the spirals) and 9mm (outside), which makes possible the investigation of refractory systems up to 2500-2700C under a vacuum of 10^{-4} mm Hg. The sample in the form of a bead or fragment is placed in the middle of the inner spiral and heated in a tungsten loop or small cup. The sample is observed through a rotating prism. The temperature of the working area of the furnace is measured by means of W-Re thermocouple with an accuracy of 15°. It is enclosed in a jacket with a vacuum

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ACCESSION NR: AR4015686

connection. This thermocouple is characterized by a high electromotive force (40 mv at 2700C), steady readings and a linear relationship between electromotive force and temperature. Ye. Banashek

SUB CODE: GC, IE DATE ACQ: 09Jan64 ENCL: 00

Card 2/2

L 23686-66 EWP(e)/EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/WW/JG/WH

ACC NR: AR6005213 SOURCE CODE: UR/0058/65/000/009/E017/E017

SOURCE: Ref. zh. Fizika, Abs. 9E152

AUTHORS: Botvinkin, O. K.; Demichev, S. A.

TITLE: Investigation of certain properties of glasses in the Na_2O-ZrO_2-SiO_2 system. Report 1. Investigation of the refractive index and the density of glasses as functions of their composition

REF SOURCE: Steklo. Inform. Materialy, Gos. n.-i. in-ta stekla, no. 2(123), 1964, 1-7

TOPIC TAGS: glass, silicate glass, refractive index, glass property, zirconium compound

TRANSLATION: On the basis of an investigation of the refractive index (RI) and the density of glasses of the Na_2O-ZrO_2-SiO_2 system, it is found that zirconium dioxide, when introduced into the glass up to 22.5%, increases the RI, and in this case the dependence of RI on the composition of the investigated glasses has a linear character. The density of the glasses increases when zirconium dioxide in the same amounts is introduced. An investigation of the RI and calculations have made it possible to establish that the structural coefficient for zirconium dioxide is numerically equal to its molecular weight. On the basis of the experiments it is proposed that the zirconium dioxide enters in the silicon-oxygen core.

SUB CODE: 11

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L 13571-66 EWT(m)/EWP(e)/EWP(b) WH

ACC NR: AR6000263 UR/0081/65/000/014/B075/B075

46
B+1

SOURCE: Ref. zh. Khimiya, Abs. 14B492

AUTHOR: Botvinkin, O.K.; Demichev, S.A. 15,44

TITLE: Investigating some properties of glass in the Na_2O-ZrO_2-SiO_2 system. Thermal expansion of glass and its dependence on the composition 15

CITED SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2(123), 1964, 7-15

TOPIC TAGS: glass, glass property, silicate glass, thermal expansion

TRANSLATION: The addition of ZrO_2 to silicate glass at the expense of silica or alkalies increases the softening temperature of glass. At the same time, the T_g temperature also increases. Because the linear expansion in glass is determined basically by its alkali content, the thermal expansion coefficient increases when SiO_2 is substituted with ZrO_2. The substitution of Na_2O with ZrO_2 results in a decrease in the thermal expansion coefficient. The linear expansion coefficient in the glasses investigated increases by substitution of SiO_2 with Na_2O, despite the presence of ZrO_2 into silicate glass a Si— O —Zr bond is formed. This indicates that Zr takes part in creating the glass lattice. See report 1 in abstract 14B491.

SUB CODE: 07
jw
Card 1/1

L 23806-66 EWP(e)/EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/WW/JG/WH

ACC NR: AR6005210 SOURCE CODE: UR/0058/65/000/009/E016/E016

SOURCE: Ref. zh. Fizika, Abs. 9E145

AUTHORS: Botvinkin, O. K.; Demichev, S. A.

TITLE: Investigation of certain properties of glasses in the Na_2O-ZrO_2-SiO_2 system. Report 5. Investigation of the structure with the aid of an electron microscope.

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2(123), 1964, 27-33

TOPIC TAGS: glass, silicate glass, glass property

TRANSLATION: It is established that glasses in the Na_2O-ZrO_2-SiO_2 system are not homogeneous, but have a core consisting of silica and a large number of microinhomogeneities. These aggregates differ in their composition from the core of the glass. The data obtained confirm the microheterogeneous aggregation theory of glass construction. For part IV see Abstract 9E153 (Acc. Nr. AR6005214).

SUB CODE: 11,20

Card 1/1

L 23814-66 EWP(c)/EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/JW/JG/WH

ACC NR: AR6005211 SOURCE CODE: UR/0058/65/000/009/E016/E016

52
B

SOURCE: Ref. zh. Fizika, Abs. 9E147

AUTHORS: Botvinkin, O. K.; Demichev, S. A.

TITLE: Investigation of certain properties of glasses in the Na_2O-ZrO_2-SiO_2 system. Report 2. Thermal expansion of glasses and its dependence on the composition

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2(123), 1964, 7-15

TOPIC TAGS: glass, silicate glass, glass property, thermal expansion

TRANSLATION: It has been observed that zirconium dioxide introduced in silicate glass at the expense of decreasing the silica or the alkalis raises the softening temperature of the glass. The coefficient of thermal expansion increases when the ZrO_2 is substituted for SiO_2, since the linear expansion is determined essentially by the content of the alkalis in the glass. Replacement of Na_2O by ZrO_2 leads to a lowering of the coefficient of thermal expansion. In spite of the presence of 15% ZrO_2 by weight, the linear expansion of the investigated glasses increases when SiO_2 is replaced by Na_2O. It is suggested that Si-O-Zr bonds are produced when the zirconium dioxide is introduced into the silicate glass, thus indicating that zirconium participates in the formation of the glass lattice. For part I see Abstract 9E152 (Acc. Nr. AR6005213).

SUB CODE: 11

Card 1/1

23815-66 EWP(e)/EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/WW/JG/WH

ACC NR: AR6005212 SOURCE CODE: UR/0093/65/000/009/E017/E017

61
B

SOURCE: Ref. zh. Fizika, Abs. 9E150

AUTHORS: Botvinkin, O. K.; Demichev, S. A.

TITLE: Investigation of certain properties of glasses in the Na_2O-ZrO_2-SiO_2 system. Report 3. Microhardness and surface energy of the glasses

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2(123), 1964, 15-21

TOPIC TAGS: glass, silicate glass, hardness, surface hardening, glass property, crystal lattice, zirconium compound

TRANSLATION: It has been observed that zirconium dioxide introduced into glass raises the microhardness, while addition of sodium oxide reduces the microhardness of zirconium glass. The coefficients of volume grinding-together of glasses of the Na_2O-ZrO_2-SiO_2 system are determined. The surface energy of the glasses in the Na_2O-ZrO_2-SiO_2 system is calculated. It is shown that introduction of zirconium dioxide leads to strengthening of the crystalline lattice of the glass. For part II see Abstract 9E147 (Acc. Nr. AR6005211)

SUB CODE: 11

Card 1/1

UDC: 539.3

L 23804-66 EWP(e)/EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/WW/JG/WH

ACC NR: AR6005214 SOURCE CODE: UR/0058/65/000/009/E017/E017

SOURCE: Ref. zh. Fizika, Abs. 9E153

AUTHORS: Botvinkin, O. K.; Krogius, Ye. A.; Demichev, S. A.; Vlasov, V. A.

TITLE: Investigation of certain properties of glasses in the Na_2O-ZrO_2-SiO_2 system. Report 4. Reflection spectra in the infrared region

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2(123), 1964, 22-27

TOPIC TAGS: glass, silicate glass, glass property, light reflection, optic spectrum, ir spectrum, zirconium compound

TRANSLATION: The IR reflection spectra were investigated in the region of 700--1300 cm^{-1} for three series of glasses, corresponding to the general formulas $yNa_2O \cdot xZrO_2(85 - x)SiO_2$, $xNa_2O(32.5 - x)ZrO_2 \cdot ySiO_2$, and $xZrO_2 \cdot yNa_2O(85 - y)SiO_2$. It is shown that an increase in the amount of zirconium dioxide leads to depolymerization of the structural grid of the glass. A hypothesis is advanced that the zirconium enters the grid of the glass via breaking the Si-O-Si bonds. For part III see Abstract 9E150 (Acc. Nr. AR6005212)

SUB CODE: 11, 20

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L 39672-66 EWT(m)/EWP(e) WH/GD-2

ACC NR: AR6000262 SOURCE CODE: UR/0081/65/000/014/B075/B075

AUTHOR: Botvinkin, O. K.; Demichev, S. A.

TITLE: Study of some properties of glasses in the Na_2O-ZrO_2-SiO_2 system. Report 1. Effect of the glass composition on the refractive index and density.

SOURCE: Ref. zh. Khimiya, Abs. 14B491

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2 (123), 1964, 1-7

TOPIC TAGS: glass, glass property, zirconium, zirconium compound, refractive index, optic density

ABSTRACT: The refractive indexes and densities (d) of Na_2O-ZrO_2-SiO_2 system glasses were measured. It was established that ZrO_2 in glass in an amount up to 22.5% increases the refractory index, and its relationship to the composition of the investigated glasses is linear. The density of glasses with the same amount of ZrO_2 present increases. Based on the data obtained for density it was found that the relationship between the composition of glass is complex and can be shown by curves which comply with the equation d=klgP, where 'k' is the angle

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L 39672-66

ACC NR: AR6000262

coefficient, P the percentage of oxide content. By this study of the refractive index and calculations it was established that the ZrO_2 structural coefficient is equal numerically to its molecular weight. Based on the experiments it is assumed that ZrO_2 is included in the silicon-oxygen framework. Author's summary

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L 39669-66 SWT(m)/EWP(e) WH/GD-2

ACC NR: AR6000264 SOURCE CODE: UR/0081/65/000/014/B075/B075

AUTHOR: Botvinkin, O. K.; Demichev, S. A.

TITLE: Study of some properties of glass in the Na_2O-ZrO_2-SiO_2 system. Report 3. Microhardness and the surface energy of glass

SOURCE: Ref. zh. Khimiya, Abs. 14B493

REF SOURCE: Steklo Inform. materialy Gos. n.-i. in-ta stekla, no. 2 (123), 1964, 15-21

TOPIC TAGS: glass, glass property, zirconium, silicon, toughness, hardness, crystal lattice

ABSTRACT: The introduction of ZrO_2 into glass increases its microhardness. Na_2O in Zr-glasses decreases its microhardness. The coefficient of the abradability of Na_2O-ZrO_2-SiO_2 - system glasses was determined, and the surface energy of these glasses calculated. It was shown that the addition of ZrO_2 results in toughening of the glass crystalline lattice. Report 2, see abstract 14B492. Author's summary.

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L 39670-66 EWT(m)/EWT(e) WH/GD-2

ACC NR: AR6000265 SOURCE CODE: UR/0081/65/000/014/B075/B075

AUTHOR: Botvinkin, O. K.; Krogius, Ye. A.; Demichev, S. A.; Vlasov, V. A.

TITLE: Study of some properties of glass in the Na_2O-ZrO_2-SiO_2 system. Report 4. Reflection spectra in the infrared region

SOURCE: Ref. zh. Khimiya, Abs. 14B494

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2 (123), 1964, 22-27

TOPIC TAGS: glass, glass property, zirconium, silicon, depolymerization, crystal lattice, IR spectrum

ABSTRACT: The IR reflection spectra in the region 700-130cm^{-1} of 3 series of glass, corresponding to the general formulas: $yNa_2O \cdot xZrO_2(85-x)\ SiO_2$; $xNa_2O(32.5-x)\ ZrO_2 \cdot ySiO_2$; and $xZrO_2 \cdot yNa_2O(85-y)\ SiO_2$ was studied. It was shown that an increase of ZrO_2 content results in a depolymerization of the structural lattice of glass. It is suggested that Zr is introduced into the glass lattice by disrupting the Si-O-Si bonds. See report 3, abstract 14B493. Author's summary.

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L 39571-66 EWT(m)/EWP(e) WH/GD-2

ACC NR: AR6000266 SOURCE CODE: UR/0081/65/000/014/B075/B076

AUTHOR: Botvinkin, O. K.; Demichev, S. A.

TITLE: Study of some properties of glass in the Na_2O_2-ZrO_2-SiO_2 system. Report 5. Study of the structure using an electron microscope

SOURCE: Ref. zh. Khimiya, Abs. 14B495

REF SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 2, (123), 1964 27-33

TOPIC TAGS: glass, glass property, zirconium, silicon, matter structure

ABSTRACT: It was determined that glasses in the Na O-ZrO -SiO system are not homogeneous but have a frame work ocntaining silica, and a large number of micro-heterogeneities. These aggregates differ in their composition from the glass framework. The data obtained confirm the micro-heterogenity theory of glass structure. See report 4, 14B494.

SUB CODE: 11 / SUBM DATE: none/ OTH REF: 028

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